

REMARKS

Applicants herein are filing an RCE under 37 CFR 1.17(e), with the appropriate fee.

Applicant also encloses herewith a Declaration of Hubert J. McGovern, co-inventor of the screw which is the subject of the present invention and Senior Vice President and General Manager of applicant, Olympic Manufacturing Group, Inc., to establish that the screw of the present invention has met with widespread commercial success. The Declaration also establishes that embodiments of the claimed invention have provided unexpected results with regard to overcoming the problems of the mushroom or volcano effect associated with conventional fasteners.

Reconsideration of the various rejections set forth in the Office Action dated June 29, 2004 is respectfully requested in view of the following remarks.

No new claims have been added. Claim 8 has been cancelled without prejudice. Upon entry of the following remarks, claims 6, 7, 11, 23-33, 45-67, 94-97, 100, 106-110, 113, and 119 will be in the present application.

Rejections Under 35 U.S.C. §102

Claim 8 has been rejected as being anticipated by the Rodenhouse Grip-Lok® screw. Claim 8 has been cancelled without prejudice. As such, any proper rejection under 35 U.S.C. §102 has been obviated.

Rejections Under 35 U.S.C. §103

Claims 6, 7, 11, 45, 47, 48, 51, 52, 54, 55, 58-61, 63, 64, and 67 have been rejected under 35 U.S.C. §103 as unpatentable over the Rodenhouse Grip-Lok® screw in view of Takasaki (US 6,000,892).

To establish a prima facie case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings.

Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143.

As thoroughly discussed in a recent court holding,

...the essential factual evidence on the issue of obviousness is set forth in Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966) and extensive ensuing precedent. The patent examination process centers on prior art and the analysis thereof. When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the Graham factors). In re Lee, 61 USPQ2d, 1430 (Fed. Cir. 2002).

A showing of a suggestion, teaching or motivation to combine the prior art reference is an "essential component of an obvious holding" C.R. Bard, Inc., v. M3 Systems, Inc., 48 USPQ2d 1225, 1232 (Fed. Cir. 1998).

The expectation of success is not whether it would have been obvious to try a modification or combination. Gillette Co. v. S.C. Johnson & Son, Inc., 9191 F.2d 720, 725 (Fed. Cir. 1990).

A prior art reference or combined references must teach or suggest all of the limitations of a claim to be prior art under §103. In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

The Proposed Modification or Combination Would Change the Principle of Operation of The Rodenhouse Grip-Lok® Screw

The MPEP states that "[!]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being

modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)" MPEP 2143.01.

The Rodenhouse Grip-Lok® screw is clearly described in the Walls & Ceilings publication as having a principle of operation wherein:

[t]he smaller bottom thread quickly penetrates the substrate as the larger top thread engages into the washer hub. After six revolutions of the screw, the top thread sets deep into the center hub of the washer throat. This preloads the insulation to the correct depth and rasping height (slightly sub-surface). The washer compresses into the foam, at the exact time that the drive-bit disengages from the recess head."

The principle of operation for suppressing the bulging by the Takasaki '892 reference is stated as confining material "that remains on the surface of the plate member A1, thus preventing the bulge from protruding from the head". Takasaki '892, Column 3, lines 16-18.

In the June 29, 2004 Final Office Action the Examiner states that the "Rodenhouse screw does in fact have a head, and would still include the #2 square drive socket for quick release of the drive bit. Therefore the principle operation would remain the same." Applicant respectfully disagrees with this statement in part. While the Applicant agrees that the Rodenhouse screw does in fact have a head, the Applicant notes that the Rodenhouse Grip-Lok® screw head is required to have a configuration such that release of the drive bit occurs automatically (emphasis added). It is clear that the principle of operation is not "quick release of the drive bit", but is an automatic release of the drive bit. This automatic release can only be achieved with Rodenhouse's head configuration. This automatic release is necessary to achieve Rodenhouse's principle of operation (preloading insulation as describes in the Walls & Ceilings publication).

The Examiner's proposed modification or combination of the teachings of the Rodenhouse Grip-Lok® screw with the teachings of Takasaki '892 to provide the Rodenhouse Grip-Lok® screw with the "undercut features of the head on the Grip-Lok screw as disclosed in Takasaki" would change Rodenhouse's principle

of operation of, at least, disengaging the drive-bit from the recess head "automatically". The proposed change or modification to the teachings of the Rodenhouse Grip-Lok® screw would clearly prevent the drive-bit from disengaging from the recess head "automatically" since the washer throat will not "swallow" the screw head as modified by the teaching of Takasaki. The proposed modification or combination of the teachings of the Rodenhouse Grip-Lok® screw would instead and by necessity not allow the drive-bit to automatically disengage from the head since the head, as modified by the teaching of Takasaki, would clearly remain above the washer. Clearly if the teaching of Takasaki were combined with the teaching of the Rodenhouse Grip-Lok® screw, the head would by necessity confine material that remain on the surface the washer. This would clearly be contrary to the designed purpose of preloading of the insulation to which the Rodenhouse Grip-Lok® screw is directed.

In addition, the modification or combination of the teachings of the Rodenhouse Grip-Lok® screw to include the "undercut features of the head on the Grip-Lok screw as disclosed in Takasaki" would require a substantial reconstruction and redesign of the elements shown in the Rodenhouse Grip-Lok® screw, since it would require, at least, a head portion which is designed to automatically disengage with a drive-bit during installation to be reconstructed and redesigned into a head portion with "undercut features" in order to confine material that remains on the surface of the washer. Because of at least these reasons, the rejection of the claims is improper.

Applicants respectfully note that the above remarks do not invoke the holdings or reasoning of In re Keller, 642 F.2d 413 (CCPA 1981) and In re Merck & Co., 800 F.2d 1091 (Fed. Cir. 1986) in supporting an examiner's statement that the references of Rodenhouse and Takasaki are being attacked individually. To clarify this point for the Examiner, the Applicants are clearly asserting that Rodenhouse and Takasaki must be taken, not in isolation, but for what they fairly teach as a whole.

No Motivation or Suggestion To Make The Proposed Combination or Modification

The cited prior art and the knowledge of one of ordinary skill in the art at the time the invention was made does not teach or suggest a fastener having a substantially cylindrical threaded lower region and a cross sectional area along the cylindrical upper region greater than the cross sectional area of the shaft along the cylindrical lower region in combination with, for example:

the head is provided with a top surface having an opening to receive a tool and a bottom surface having a v-shaped undercut having a conical surface in the undercut that connects the lip with a conical underside of the head; or

a crown that extends around the perimeter of the head and extends beyond the lower surface of the head thereby defining an open volume between the lower edge of the crown and the shaft of the screw; or

a crown that extends around the perimeter of the head, wherein the crown extends beyond the lower surface of the head, forming a recessed region between the lower edge of the crown and the shaft of the screw; or

a bottom surface having a v-shaped undercut.

This is evidenced at least by the disclosure of the Rodenhouse Grip-Lok® screw which clearly and in no uncertain terms teaches disengagement of the drive-bit from the recess head "automatically". This is clearly contrary to the claimed invention.

The Examiner's asserted rejection under 35 U.S.C §103 of the claims 6, 7, 11, 45, 47, 48, 51, 52, 54, 55, 58-61, 63, 64, and 67 simply does not apply since the required motivation or suggestion is not present to arrive at a fastener having, at least, the above claimed features.

Cited Prior Art Teach Away

Applicants note that the June 29, 2004 Final Office Action did not address the Applicant's remarks with regard to the cited references teaching away.

It is a well-established "general rule" that references which teach away

cannot serve to create a *prima facie* case of obviousness. In re Gurley, 27 F3d 551, 553, 31 USPQ2d 1131, 1132 (Fed. Cir. 1994). A "reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the Applicant." Winner Int'l Royalty Corp. v. Wang, 202 F.3d 1340 (Fed. Cir. 2000) citing Gurley at 553; Monarch Knitting Machinery v. Sulzer Morat GmbH, 139 F.3d 877, 882 (Fed. Cir. 1998).

The Rodenhouse Grip-Lok® screw disclosure expressly teaches and suggests a line of development flowing toward fastener/washer assemblies designed to operate in a very specific manner. For example, the Rodenhouse Grip-Lok® screw is configured to automatically disengage from the drive bit. This clearly is a line of development unlikely to be productive in achieving, for example, substrate displacement or reduction of the volcano phenomena in wood products as sought by the Applicants. As such, the Rodenhouse Grip-Lok® screw disclosure reference clearly teaches away from the claimed invention. Therefore, the rejection under 35 U.S.C. §103 is improper for at least this additional reason.

Rejection of Claims 23, 29, and 30 Improper

Claims 23, 29, and 30 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Hsing '312 reference (U.S. 6,045,312).

The courts have held that the prior art reference must be considered in its entirety, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984); see also M.P.E.P. §2141.02. The burden is on the Examiner to demonstrate that the prior art evidences sufficient suggestion of the desirability of doing what the inventor has done. See M.P.E.P. §2142. At an irreducible minimum, this burden requires this Examiner to apply the facts of the case to "present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings

of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Clearly, the Examiner cannot discharge himself from this burden by simply declaring all of the elements of an invention, along with the manner of combining these elements, to be well known in the art. Ex parte Stem, 13 USPQ2d 1379, 1381 (Bd. Pat. App. & Inter. 1989).

Applicants respectfully note that the Examiner has not addressed the Applicants' request for clarification of the Examiner's assertion that the Hsing '312 reference shows, at least, the element of at least twice as many threads per unit length in the upper region. Applicants request that the Examiner clarify this assertion by pointing to a specific disclosure in the Hsing '312 reference. However, if the Hsing '312 reference is again asserted by the Examiner to disclose this element, the rejection would clearly fail since the Examiner would be merely taking the Hsing '312 reference's thread configuration and declaring all of the elements of an invention, along with the manner of combining these elements, to be well known in the art.

Clearly, the Hsing '312 reference has not been considered in its entirety since the Hsing '312 reference is directed toward a device for fastening sheet metal and contains no motivation or suggestion to combine its teachings with the Rodenhouse Grip-Lock® screw to arrive at the Applicants' claimed invention. In particular the Hsing '312 reference "pertains to a fastener of a type employed to fasten a sheet-metal plate to a substrate, where the sheet-metal plate may be comparatively thin and the substrate may be comparatively thick (emphasis added)." Hsing, column 1, lines 6-8. A skilled artisan would not look to Hsing when modifying the Rodenhouse Grip-Lock® screw in order to achieve what the Applicants have achieved with their claimed invention. As such, the rejection of claims 23, 29, and 30 under 35 U.S.C. §103 cannot properly be made.

Rejection of Claims 46, 53, and 62 Improper

Claims 46, 53, and 62 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the

Takasaki '892 reference, and in further view of the Hsing '312 reference.

The rejection of claims 46, 53, and 62 is improper for at least the reasons discussed above with regard to the improper combination or modification of the Rodenhouse Grip-Lok® screw teaching by the teaching and suggestion of Takasaki '892.

Rejection of Claims 24-28 and 32 Improper

Claims 24-28 and 32 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Hsing '312 reference, and in further view of the Takasaki '892 reference.

The rejection of claims 24-28 and 32 is improper for at least the reasons discussed above with regard to the improper combination or modification of the Rodenhouse Grip-Lok® screw teaching by the teaching and suggestion of Takasaki '892.

Rejection of Claims 50, 57, and 66 Improper

Claims 50, 57, and 66 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Takasaki '892 in further view of the De Caro '938 reference.

The rejection of claims 50, 57, and 66 is improper for at least the reasons discussed above with regard to the improper combination or modification of the Rodenhouse Grip-Lok® screw teaching by the teaching and suggestion of Takasaki '892.

Rejection of Claims 31, 94, 100, and 106 Improper

Rejection of claims 31, 94, 100, and 106 is improper for at least the reason that the De Caro '938 reference is directed toward a different field of endeavor than the Applicants' claimed invention and is not pertinent to the particular problem with which the Applicants are concerned. Simply stated, a person of ordinary skill in the art would not reasonably have expected to solve, at least, the problem of "volcanoing" or "mushrooming" in composite building

materials with a reference dealing with a "non-seating plate/screw assembly" as found in De Caro '938. The De Caro '938 explicitly teaches a plate and screw system with the screw having threads to hold down the plate. The plate is in turn used to hold down "material for a roof deck". De Caro '938, column 2, lines 23-24. The threads of the De Caro '938 are designed, under certain conditions, to entirely "disengage" with the substrate of the plate into which they are fastened. De Caro '938, column 5, lines 4-6. For at least these reasons the De Caro '938 reference is nonanalogous art, and as such cannot be relied on as a reference by the Examiner in this case. As such, the rejection of claims 31, 94, and 106 can not be properly made.

In addition, claim 31 depends directly on claim 23 and is patentable for at least the reason advanced for claim 23.

Rejection of Claims 95-97, 107-110, 113, and 119 Improper

Claims 95-97, 107-110, 113, and 119 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Hsing '312 and De Caro '938 references as applied to claim 94, and in further view of the Takasaki '892 reference.

Claims 95-97, 107-110, 113, and 119 depend directly or indirectly on claim 94 and are patentable for at least the reason advanced for claim 94.

In addition, the rejection of claims 95-97, 107-110, 113, and 119 is improper for at least the reasons discussed above with regard to the improper combination or modification of the Rodenhouse Grip-Lok® screw teaching by the teaching and suggestion of Takasaki '892.

Objective Evidence of Nonobviousness

Applicants present herewith a declaration under 37 C.F.R. §1.132 for the purpose of traversing any of the above obviousness rejections of the pending claims on the basis of the cited art and/or the knowledge available to one of skill in the art. The Declaration presents expert opinions and objective evidence in

support of Applicants' argument that the claimed invention is not obvious in view of the prior art cited by the Examiner.

Applicants respectfully note that MPEP §716.01 states as follows:

"Evidence traversing rejections must be considered by the Examiner whenever present. All entered affidavits, declarations and other evidence traversing rejections are acknowledged and commented upon by the Examiner in the next succeeding action." "Where the evidence is insufficient to overcome the rejection, the Examiner must specifically explain why the evidence is insufficient. General statements such as, 'the declaration lacks technical validity' or 'the evidence is not commensurate with the scope of the claims' without an explanation supporting the findings are not sufficient."

Applicants have provided the Declaration of Hubert T. McGovern which attests to the commercial success of the commercial embodiments of the Deck Screws Suitable For Use With Composite Lumber under the brand names Fasten Master and TrapEase. Mr. McGovern's Declaration closely ties the commercial success of the products to the claimed attributes and in particular a shaft having a cross-sectional area along the upper cylindrical region, which is greater than the cross-sectional area of the shaft along the cylindrical lower region. In addition to the shaft having a cross-sectional area along the upper cylindrical region, which is greater than the cross-sectional area of the shaft along the cylindrical lower region, the claimed attributes also include at least a head provided with a top surface having an opening to receive a tool and a bottom surface having a v-shaped undercut having a conical surface in the undercut that connects the lip with a conical underside of the head, and/or a thread pattern of the lower region which is symmetrical, and/or a gimlet tip having an included angle from about 20° to about 30° and/or at least twice as many threads per unit length in the upper region as there are threads per unit length in the lower region, and/or a crown that extends around the perimeter of the head and extends beyond the lower surface of the head thereby defining an open volume between the lower edge of the crown and the shaft of the screw, and/or a crown that extends around the perimeter of the head, wherein the crown extends beyond

the lower surface of the head, forming a recessed region between the lower edge of the crown and the shaft of the screw; and/or a bottom surface having a v-shaped undercut.

Mr. McGovern also provides a detailed statement of the factual basis for his opinion that the commercial embodiments of the claimed Deck Screws Suitable for Use with Composite Lumber are a commercial success. Most notably, Mr. McGovern has provided a survey ranking brands (Exhibit B) and commented on the survey as found in "Home Improvement Executive" Vol. 13, No. 10, May 26, 2003. Exhibit B clearly establishes that the Fasten Master and TrapEase screws, which incorporate the claimed invention, show dominance in the market place. Applicants note that Mr. McGovern has also submitted sales figures which show the revenue and units sold for the years 2002, 2003, and 2004. Mr. McGovern has established that the increase in sales is directly attributable to the claimed invention.

The Declaration of Hubert T. McGovern also attests to the unexpected results associated with the commercial embodiments of the Deck Screws Suitable For Use With Composite Lumber under the brand names FastenMaster and TrapEase. Mr. McGovern's Declaration closely ties the unexpected results associated with the products to the claimed attributes and in particular a shaft having a cross-sectional area along the upper cylindrical region, which is greater than the cross-sectional area of the shaft along the cylindrical lower region. In addition to the shaft having a cross-sectional area along the upper cylindrical region, which is greater than the cross-sectional area of the shaft along the cylindrical lower region, the claimed attributes also include at least a head provided with a top surface having an opening to receive a tool and a bottom surface having a v-shaped undercut having a conical surface in the undercut that connects the lip with a conical underside of the head, and/or a thread pattern of the lower region which is symmetrical, and/or a gimlet tip having an included angle from about 20° to about 30° and/or at least twice as many threads per unit length in the upper region as there are threads per unit length in the lower region, and/or a crown that extends around the perimeter of the head and extends

beyond the lower surface of the head thereby defining an open volume between the lower edge of the crown and the shaft of the screw, and/or a crown that extends around the perimeter of the head, wherein the crown extends beyond the lower surface of the head, forming a recessed region between the lower edge of the crown and the shaft of the screw; and/or a bottom surface having a v-shaped undercut.

Most notably, Mr. McGovern has stated that based on his position as President of Olympic Manufacturing Inc. as well as on his experience in the fastener industry, that the FastenMaster and TrapEase products have displayed unexpected results with regard to solving a long standing problem in the field. Mr. McGovern has pointed to an example of showing a comparative picture (Exhibit C) of a "Standard Deck Screw" and a TrapEase product that have been driven into composite lumber.

In accordance with standards set out by the M.P.E.P. and relevant case law, evidence in favor of a prima facie case of obviousness should be balanced against evidence for nonobviousness presented by the Applicant. In this case and as thoroughly discussed by the Applicants in previous responses, in the Examiner interview and in this paper, the Examiner's case for obviousness of the claimed invention is weak at best. Specifically, there is no motivation or suggestion to modify or combine the teachings of the references result in a fastener having, among other things, a shaft having a cross-sectional area along the upper cylindrical region, which is greater than the cross-sectional area of the shaft along the cylindrical lower region, and includes a head provided with a top surface having an opening to receive a tool and a bottom surface having a v-shaped undercut having a conical surface in the undercut that connects the lip with a conical underside of the head, and/or a thread pattern of the lower region which is symmetrical, and/or a gimlet tip having an included angle from about 20° to about 30° and/or at least twice as many threads per unit length in the upper region as there are threads per unit length in the lower region, and/or a crown that extends around the perimeter of the head and extends beyond the lower surface of the head thereby defining an open volume between the lower edge of

the crown and the shaft of the screw, and/or a crown that extends around the perimeter of the head, wherein the crown extends beyond the lower surface of the head, forming a recessed region between the lower edge of the crown and the shaft of the screw; and/or a bottom surface having a v-shaped undercut.

In the face of this weak *prima facie* case, Applicants' evidence of, at least, commercial success and unexpected results is sufficient to overcome the Examiner's claim rejections.

In summary, Applicants have addressed each of the rejections within the present Office Action either by Amendment or Remarks. It is believed the application now stands in condition for allowance, and prompt favorable action thereon is earnestly solicited.

Respectfully Submitted,

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Enclosures

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